## **Claims**

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- 1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of
  - i) contacting a test compound with a KLK8 polypeptide,
- ii) detect binding of said test compound to said KLK8 polypeptide.
  - 2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of
- i) determining the activity of a KLK8 polypeptide at a certain concentration of a test compound or in the absence of said test compound,
  - ii) determining the activity of said polypeptide at a different concentration of said test compound.
  - 3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic diseases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of

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i) determining the activity of a KLK8 polypeptide at a certain concentration of a test compound,

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- ii) determining the activity of a KLK8 polypeptide at the presence of a compound known to be a regulator of a KLK8 polypeptide.
  - 4. The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.
- The method of any of claims 1 to 3, wherein the cell is in vitro.
  - 6. The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.
- The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.
  - 8. The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.
  - 9. The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.
- 10. The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.
  - 11. The method of any of claims 1 to 3, wherein the compound is attached to a solid support.
- 30 12. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular

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diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of

- i) contacting a test compound with a KLK8 polynucleotide,
  - ii) detect binding of said test compound to said KLK8 polynucleotide.
  - 13. The method of claim 12 wherein the nucleic acid molecule is RNA.
  - 14. The method of claim 12 wherein the contacting step is in or at the surface of a cell.
  - 15. The method of claim 12 wherein the contacting step is in a cell-free system.
  - 16. The method of claim 12 wherein polynucleotide is coupled to a detectable label.
- 17. The method of claim 12 wherein the test compound is coupled to a detectable label.
  - 18. A method of diagnosing a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of
    - i) determining the amount of a KLK8 polynucleotide in a sample taken from said mammal,
- 30 ii) determining the amount of KLK8 polynucleotide in healthy and/or diseased mammals.

- 19. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising a therapeutic agent which binds to a KLK8 polypeptide.
- 20. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising a therapeutic agent which regulates the activity of a KLK8 polypeptide.

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- 21. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising a therapeutic agent which regulates the activity of a KLK8 polypeptide, wherein said therapeutic agent is
  - i) a small molecule,
  - ii) an RNA molecule,
  - iii) an antisense oligonucleotide,
  - iv) a polypeptide,
  - v) an antibody, or
  - vi) a ribozyme.
- 30 22. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological

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diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising a KLK8 polynucleotide.

A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising a KLK8 polypeptide.

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24. Use of regulators of a KLK8 for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal.

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25. Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal comprising the steps of

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i) identifying a regulator of KLK8,

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ii) determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic dieases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders in a mammal; and

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iii) combining of said regulator with an acceptable pharmaceutical carrier.

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26. Use of a regulator of KLK8 for the regulation of KLK8 activity in a mammal having a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, neurological diseases, metabolic diseases, cancer disorders, urological diseases, gastroenterological diseases and reproduction disorders.

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